

ABSTRACT OF THE DISCLOSURE

A bubble-actuated valve with latching may be utilized to regulate fluid flow in any number of applications, including the controlled delivery of drugs or other bioactive agents or compounds. The bubble-actuated valve utilizes the bubble to move a solid object that does the actual blocking of the flow channel to regulate the flow of liquid through the valve. The bubble-actuated valve may also include a latching mechanism. One such latching mechanism utilizes the capillary attraction between the solid object and neighboring walls to latch the solid object in place when the valve is not actuated.